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ABSTRACT

The development of national communications systems, particularly radio and television, and the impact of this technology on the largely traditional society of Indonesia was the focus of this two-year repeated survey sponsored by UNESCO. The sociocultural effects of radio and television communications on Indonesian national integrity, language use, development of educational programs, dissemination of information on new agricultural technologies, family health and welfare, construction and public works, patterns of consumption, and social values are described, as well as how the economic, cultural, and social structures of the entire society have been affected. While television has generally strengthened the traditional communication networks of interpersonal and village administrative chains, different economic and sociocultural backgrounds have strongly influenced various groups' acceptance and use of information provided by the medium. The distribution and ownership of television receivers has proven to be a prime factor in conditioning the effectiveness of modern communication systems, and local opinion leaders tend to make intensive and regular use of television if it is available. (Author/BK)

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IMPACT OF MODERN COMMUNICATION TECHNOLOGY

II. INDONESIA

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PREFACE

The main purpose of this Unesco project was to analyse the development of national communication systems, in particular the introduction of modern mass media, and the impact of this technology on "traditional" as well as "industrialised" societies.

The approach followed was to undertake two case studies, one in Indonesia, representing a largely "traditional society" and one in Australia representing an "industrialised society", both of which are using intensively modern communication media, which are to a great extent imported.

Besides describing how the economic, cultural and social structure of these societies is affected by modern communication technologies the studies try to analyse the role the mass media play in cultural life, in social integration and national development.

Communication technology is seen to have a direct impact on economic development and political organization and not merely on lifestyles and culture. Technology is not a "neutral element" which can be divorced from social, cultural and political considerations. The choices of appropriate technology and its adaptation to the needs of the country are felt to be of political, economic and cultural significance for an industrialized country like Australia as well as for Indonesia, even if the government lays emphasis on cultural identity and national integration.

While the context, approach and methodology of the Australian and Indonesian studies are quite different, the initial questions they had to answer had much in common: (a) the effects of transfer of technology; (b) the impact of the media as well as their content.

The authors of the study on Australia acknowledge that the introduction of modern communication technology has also to be linked to the "identity crises" of the present world and not only to a country

like Australia, and to the reassertion of their own "cultural identity".

Transfer of technology it seems can also be a vehicle for the transfer of ideology. Therefore the recent interest of Australia in appropriate communication technology in order to produce adequate endogenous messages so as to redress imbalances in flow of information and cultural materials.

One of the most important findings of the Australian study is therefore the experience that technological progress, understood as modernization particularly in the communication field, is not per se and necessarily a beneficial process. This is also confirmed by the results of the Indonesian study which laid more emphasis on the relationship between communication, social change and development.

The Indonesian study has also concentrated more on the socio-cultural impact of the domestic satellite communication project in two cities and five provinces. It was found that different economic and socio-cultural backgrounds strongly influence acceptance and use of the information provided by modern communication media. Mass media distribution and ownership is a prime factor conditioning the effectiveness of modern communication systems in traditional societies. The role of the opinion leaders is closely interrelated with the role of the mass media. Though, in general, the role of mass media as initial sources of information is seen as still relatively small, the local opinion leaders are intensively and regularly using the media. They can even be characterized by their high media exposure and they are respected and influential because of their knowledge of cultural and religious matters, and also because of their innovative and progressive attitudes and practices which seem to mainly stem from the mass media.

The study also shows that there is a "two-step-flow of information". The information which is being transmitted by the mass media to the rural populations and mainly passed on and interpreted by the opinion leaders, motivates the villagers to know more, to study and adopt first technical and later cultural innovations and to participate more actively

in the life of the nation.

Both studies indicate that if modern communication technology is to be useful and efficient, its content and message need to be adjusted to the capabilities of reception, understanding, and possible use made by the population. One of the conclusions of the studies is that further research is needed to identify the specific role of mass media in the development process, to determine the impact of the media on the level of the local "consumption customs" and to design communication policies and strategies which are appropriate to the different socio-economic and cultural patterns of not only "traditional" but also of "industrialised" societies.

This study is not an official document of the country it refers to. The views stated therein are the author's and do not necessarily represent the official views of Indonesia or those of UNESCO.

FOREWORD

The study on "The impact of modern communication technology in traditional society" was conducted by a group of senior lecturers at the Faculty of Social Sciences of the University of Indonesia: Astrid S. Susanto, Alfian, Budi Santoso, Harsono Suwardi. The group was co-ordinated by Rachmadi, Head of the Information System Research and Development Center of the Board of Information Research and Development of the Ministry of Information of Indonesia. It worked under the supervision of Sjamsoe Soegito, Chief of the Information Research and Development Board, who in administrative matters was assisted by Sumarwati.

The research reflects the close co-operation between universities, research institutes and the Government, in other words, between researchers, policy-makers and planners, in order to support development policy.

This study is the first part of a five-year research project on the introduction of modern communication technology's impact on traditional/rural societies, which is financed by the Government of Indonesia. The aim is to furnish the Government of Indonesia with the necessary information on the impact of the socio-cultural changes taking place in Indonesia during the two last years of the 2nd Five-Year Plan and the first 3 years of the 3rd Five-Year Plan.

It would be unfair if the group did not mention how much it feels indebted to Professor Daniel Lerner, who inspired this research during a discussion in Hawaii with Astrid Susanto, pointing out that Indonesia is experiencing a point of no return into modernization and therefore these data would be not only of academic and scientific interest but above all valuable for finding a proper communication, even cultural, development strategy for the future.

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Background

The improvements and use of modern technology have helped man to maintain his existence and improve it wherever possible. Modern technology has enabled man to benefit from his environment more than before and at the same time to increase his knowledge within a shorter time. In fact, technological development has enabled him not only to fulfill his needs and exploit his natural resources, but also to exchange experiences and enjoy the benefits of thoughts developed by others through communication technology. Yet, transference of technology has always created problems, as each technology has been developed within a social and cultural background of the country in which it was created. Thus technological transference in general needs adaptation either of the imported technology itself, or by the person using it. The more complicated the technology, the harder the adjustment.

Communication technology now being used by developing countries should also be studied from this perspective. Apart from their physical appearance and technical use, communication media transmit messages known as the software of communications. If the messages are domestically produced, the problem arises how to combine domestic values with the limited capabilities of the introduced technology. If the software is also imported, then a more complicated adjustment is being asked of the recipient. Yet, being aware of these problems, many developing countries have taken the risk of adopting modern communication technology. Usually political motivations supported this action, such as the need for political integration within the country, which can more easily be achieved through transmission of common national symbols to the majority of the population. For a country like Indonesia, with different cultural backgrounds, the Palapa satellite and the expansion of the radio and television networks were indeed a solution to this matter. At the same time, the increasing need for more information on diverse development topics to be used for development activities gave additional reason to try to newly introduced communication technology, such as television, in the rural villages as well.

For this reason, the Government did not hesitate to distribute about 4,000 television receivers to different villages in the country. It is anticipated that the introduction of these sets in rural settings will create changes in village life and will in the long run even change not only the life pattern and cycle of the population, but also their social structure.

These assumed changes are the subject of the study under review. As a guideline the formulation given by Elihu Katz, Martin L. Levin, Herbert Hamilton was used, namenly that "the acceptance (1) over time (2) of some specific item, an idea or practice (3) by individuals or groups or other adopting units (4) linked to specific channels of communications (5) to a social structure (6), and to a given system of values and culture (7)".(1)

The newly introduced communication technology will be studied as a newly introduced communication system/channel, often competing with the traditional interpersonal communication structure. Findings will show the extent of the influence of modern information technology compared with that of traditional interpersonal communication system. At the same time, the physical appearance of the technology might be used as a social symbol to add status to the owner of a TV-set, and thus has different cultural functions than previously realized. It is assumed that after some time the content of the messages will influence local social life to such extent that village communities with different socio-cultural patterns will gradually show greater similarities than before. Some positive changes, such as increased consciousness of nationhood, social integration, knowledge of other parts and cultures of the country, are expected. Yet, at the same time, increased unnecessary consumption habits and entertainment of lower quality is also feared.

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(1) Elihu Katz, Martin L. Levin and Herbert Hamilton: "Traditions of research on the diffusion of innovation", in: Gerald Zaltman, Philip Koter and Ira Kaufman "Creating Social Change", New York, Holt, Rinehart & Winston Inc., 1972, p. 93.

A total change of socio-economic and cultural pattern at village level is expected after the communication technology has been used over a longer period.

As the main aim of distributing the 4,000 TV-sets to different parts of the country was to provide development information, the study will concentrate on the effectiveness of the messages in different villages of five Indonesian provinces, namely Aceh, West Kalimantan, North and South Sulawesi, and the Western Lesser Sunda Islands (Bali). The development messages to be studied will be:

- the flow of information on development programmes and people's response to or participation in them, covering:
  a) the acceptance of the educational programme,
  b) the introduction and acceptance of modern agricultural technology and its impact upon rural life;
- the impact of mass media on the local consumption pattern;
- the impact of mass media on changing local customs, religious life and traditional communication systems.

In order to see the "grade" of change, the study includes data about villages bordering on the villages and population exposed to information transmitted by public television, but unable to enjoy those modern facilities for technical reasons, e.g., either because they are in a "blindspot" within the network or not within the network's reach.

Methodology

Due to the limited budget and time, the study will be based on the data collected under the previous research project on the socio-cultural impacts of the domestic Satellite Communication. The research had been carried out in 1977 and 1978 and covered 2 cities and 5 provinces in Indonesia, namely Medan (Sumatera), Surabaya (Java) and the provinces in Aceh, Bali, South Sulawesi, North Sulawesi and West Kalimantan.

The selected sample areas represent the heterogeneous socio-cultural background of the plural Indonesian society. They should enable a comparative study to be made and show whether similar innovation (in this case the use of satellite communication) will cause similar socio-cultural responses in Indonesia's heterogeneous society and, therefore, bring similar socio-cultural impacts. The study also seeks to understand how different local people react to the introduced innovation messages within their socio-cultural life and local infrastructure.

The quantitative data were gathered from respondents by means of scheduled interviews, while the qualitative data were obtained through participant observation in the rural areas of the five provinces. Accordingly, the qualitative data are supported by computerised quantitative data.

The qualitative and quantitative data were collected shortly prior to, and one year after, the TV network system through the dispersion of the satellite ground stations, reached the studied areas. One chief field worker and a number of research assistants, who did their field study for 6-8 weeks, were stationed in each province. Each province was further represented by 4 to 6 sample villages. Village selection was based on the distance of the villages from the local satellite ground station. In order to get a clear picture of the impact of the new communication technology, additional villages were selected, which were beyond the reach of television communication. Each province therefore, provided data on the controlled villages next to villages which, after a while, were exposed to the television messages, as a consequence of the expansion of TV's network.

General information on the studied communities

As already noted, the research on the "Social Impact of Satellite Communication" carried out in 1977 and 1978 covered 2 cities and 5 provinces of Indonesia. The two cities were sampled to get a clearer picture of the impact of modern means of communication on communities living in urban and rural settings.

In other words, the two urban communities were treated as the controls for the purpose of the comparative study.

1. Description of the research areas

a) City of Medan

Medan was taken as a sample not only because of its position as the third largest city in Sumatra, but also because of its role as the local political as well as commercial centre. Besides, Medan is known as a North Sumatra melting pot. Its urban character enables people from different ethnic groups to mix together and rub shoulders to earn their living. Education plays a secondary role in this matter, so do financial capabilities.

Among many Indonesian ethnic groups in Medan, the Malays are considered as the native inhabitants. In the past, the Malays were mainly engaged in, and dominated, the local trade with the hinterland in agricultural products, such as pepper, rubber, coffee, copra and tobacco. But due to historical development during the colonial years and their increased interest either in maritime trade or pure agricultural work, the Chinese minority, the Bataks and Acehnese were able to take over their local commercial, role especially soon after World War II.

Medan is no longer dominated by a single ethnic group. Among the ethnic groups living there today, the number of Christian and Moslem Bataks who have left rural homes is increasing.

Many Bataks, benefitting from their missionary education in the past, were easily able to compete with the other urban populations and some were more eligible for governmental positions or better jobs in private companies. The less educated population remained as casual workers in factories or on public works.

Unlike the Bataks, the Moslem Acehnes coming from the most Northern part of Sumatra are still engaged in trading of various export and import comodities. Their Islamic religious background enabled them to compete with the Chinese as well as Malay merchants.

The Javanese form another ethnic group because of their relatively great number. Most of them came to Medan in 1930 as agricultural labourers brought to this area by the Dutch Tobacco Plantation owners. Most of the Javanese in Deli (near Medan) are still engaged in agricultural activities, or earning their living as petty traders or civil servants.

A growing Indonesian ethnic group is the Minangkabaus. Nowadays many of them are engaged in educational activities, but prior to the Revolution most of them were traders. As a matter of fact, today the Minangkabaus, like the Malays, are known as skilled middlemen.

b) <u>City of Surabaya</u>

Surabaya is the second largest city and situated in East Java. Like Medan and other cities in Indonesia it accommodates a variety of ethnic groups. Apart from the (East) Javanese or the local native people, there are Madurese, the central Javanese, Chinese and many other ethnic groups from the Eastern Islands of Indonesia, as well as the Minangkabaus and the Bataks, who recently also tend to migrate to Surabaya.

But, unlike the situation in Medan, the East Javanese culture is still dominant in Surabaya's daily life.

The relatively strong Moslem, Javanese coastal culture and commercial activities are the main features of the City. In fact, apart from being the capital of the province of East Java and therefore also the political centre, Surabaya is the second commercial centre of Indonesia. Its central position between the Eastern and Western part of the country has, since the times of the mediaeval Majapahit Kingdom, made Surabaya a key city in interinsular trade.

c) Province of Aceh

The province of Aceh represents the most religious Moslem community in Indonesia. Historically, the Acehnese was the first Indonesian kingdom to establish international relations with the mediaeval kingdoms in the Middle East.

The Islamization of Aceh continued intensively under the Kingdom of Darussalem from 1205 onwards. By the 16th century almost all the Acehnese had accepted the Islamic religion and consequently abandoned their old beliefs and even now they are dominated by the teachings of Islam and show many Middle-Eastern ways of life. Rudimentary customs of olden days are found in the aristocratic circles.

The dominant feature of the Acehnese community is the role of the religious leader, popularly known as Imeun Meunasah. His influence often even supersedes that of the Keucik, or the traditional elderman, who still represents the local adat or traditional customs.

Although in the family the Acehnese women, especially the mother, are influential, they are not supposed to take an active part in public affairs. There exists a strict division of rights and obligations based on the Islamic teachings, which therefore sharply distinguishes the roles of the sexes. The woman's domain is the house and family, while the husband earns the living, and represents his family in social life. In many

ways, these social regulations, strictly controlled by the local religious leaders, have hampered the Acehnese in developing and communicating more freely with the outer world.

The religious leaders are supposed to remain the sources of wisdom and to act as links, as well as filters of communication messages through the meunasahs and mosques.

d) Province of Bali

The rural areas of Bali are still populated by a homogeneous Balinese ethnic group. In the surveyed area 100 % Balinese respondents were found, while in the control village only three out of the 147 Balinese respondents were Javanese, which equals only 2,04 % non-Balinese respondents. The homogeneous population of the Balinese rural areas results from the strong and closed community life system, which is reflected in their banjar, subak and sekah sub-systems. Community ties are joined together with genealogical and Hindu-Bali religious ties.

Outsiders are only incorporated into the village through marriage or beneficence of a local family owning a family graveyard, housing compound and paddy fields.

Even more than the Acehnese, the life of the Hindu Balinese is dominated by their religious prescriptions and rituals. It can even be said that their whole life is governed by their religion and has to serve religious demands. It is, therefore, hardly possible to distinguish between social and religious activities in their daily life. But, unlike the Acehnese, the Balinese sharply distinguish between the rights and obligations of the religious leaders and those of the community leaders. The community leader, or the Klian, is responsible for worldly needs, such as improvement and maintainance of the local social and economic infrastructures. The activities of the religious leader are limited to conducting the religious and sacred ceremonies going hand-in-hand with the socio-economic activities of the community.

The villager lives in the traditional banjar (village) which is surrounded by the banjar's wall. The focal point of the banjar is the village temple (pura). Most often the borders of the administrative village unit do not coincide with the borders of the banjar.

Each family has its own housing compound in whidh the patrilineal extended family (dadia) lives. Next to the dadia, the banjar and the pura also accommodate the houses of notable local families. In addition to the family puras, there is also a communal pura for the whole village community.

Though the Balinese kinship system is patrilineal in nature and stresses virility, the women in general enjoy much greater freedom and equal rights compared with the Moslem Acehnese women.

This indicates that although Hindu religion gives a secondary place to women, the indigenous value given to them has remained alive, giving socially equal status to men and women, although not yet to any great extent in public affairs. Nowadays, women also go trading to nearby towns or even participate in public works.

The smallness of the island, the limited arable land, and the tourist industry have drawn women more into these activities. Thus, economically, the average Balinese is not much better off than the poor Acehnese.

So the flow of development communication from the central government to the villagers will only be effective if the official village headman calls for the co-operation of the banjar headman, simply because the administrative borders do not always coincide with the traditional banjar borders.

e) Province of West Kalimantan

The West Kalimantan rural inhabitants reflect a rural melting pot of Indonesian ethnic groups with non-Indonesians. The aboriginals, as

the Dayak population, have through the centuries been pushed into the inner parts of the island. Nowadays, the dominant population of West Kalimantan consists of the migrated Malays, Chinese, Makassarese, Buginese, Madurese, Javanese, Sundanese and many other ethnic groups from the more Eastern islands of Indonesia. The situation is reflected in table 1 (page 16) showing the various ethnic groups.

There are at least three different religions in the West Kalimantan, including the Islamic religion professed by the Malays, Madurese, Javanese and Sundanese; the Dayaks tend to be Christians as a result of missionary work in the past; the Chinese are mostly Confucians (see table 2 on page 17).

The economic condition of the West Kalimantan villages is not uniform. The migrated Malays, Buginese and Chinese have reached higher standards of living than the native Dayaks; the former being engaged in business and trade as middlemen. The Dayaks have kept closely to their tradition and earn their living as horticulturalists or still collect forest products, such as rattan, for export. The migrated Javanese, Madurese and Sundanese are engaged in rice cultivation or vegetable gardening to support their family consumption; a clear distinction between rich and poor does not therefore exist in West Kalimantan. Only few of the villagers in West Kalimantan enjoy the benefits of modernization, such as information via the modern means of communication.

The extensive available land has enabled the populations to live in the sub-villages (Kampung) with quite a distance between two kampungs. Poor education has forced them to depend on primordial relationships, for instance, in selecting settlement areas. Therefore, most of the kampungs in West Kalimantan are isolated enclaves with members from one single ethnic group only. The kampung elderman acts as mediator between his ethnic origin. In such a plurality of ethnic groups the role of the government officers is significant.

f) Province of North Sulawesi

The province of North Sulawesi was taken as a sample to represent

the rural Christian community in Indonesia. Christianity and Western education that went hand-in-hand with it in colonial days have made many westerners feel at home among the Minahasa population. Together with the Javanese aristocracy, this part of Indonesia enjoyed special attention in public education during colonial rule. It is therefore not surprising that together with the Javanese and nobilities of the other islands of Indonesia, many national leaders also came from the Northern part of Sulawesi during the first years after the proclamation of independence.

Historically, this area experienced a "jump into modernization" caused by the killing of the adat elderman in the 16th and 17th centuries by the Portuguese and Dutch, which in some ways shows some similarities with the process of christianization in South America.

The break with the past and the Western orientation of colonial days have left their influence on the population today. Drinking alcohol, mediaeval European dances are still in high favour.

Today, North Sulawesi villages still prefer to listen to Radio Australia or the Voice of America, or just light contemporary Indonesian popular music. A very high literacy rate made newspapers a significant source of information next to radio news, which is an exception for Indonesia. At the same time the villagers still respect their community leaders, known as hukum besar or hukum tua, as the most reliable source of official information concerning the national development programmes.

Economically, Minahasa can be counted as a rich area thanks to the cultivation of copra and clove. When television was introduced, it was not difficult for the average villager to purchase the expensive black-and-white and often even coloured television set, including the necessary antenna. TV sets were even posessed by several villagers before the TV network could reach the village.

g) The Province of South Sulawesi

The Buginese in South Sulawesi were selected as a sample in order

to obtain a comparative Moslem community in Indonesia (comparable with Aceh). As matter of fact, though the Buginese were known to be as pious as the Acehnese in professing the Mohammedan teachings, they were still strongly bound by their indigenous tradition.

Most of the villagers earn their livelihood as small peasants and fishermen. Years ago many of the landless farmers worked for their Feudal masters. Although modernization have loosened the feudal tenant-bonds, the social relationships are still kept. Many people have also left their village and chosen the sea as their livelihood. The Buginese are well-known seafarers and have for centuries been traders with the mainland of Asia. Today, the Buginese are the spontaneous transmigrants to the Eastern coasts of Sumatra, the coast of West, South and East Kalimantan as well as West Irian.

Yet traces of the past, such as the uneven distribution of land ownership due to the feudal system, still create a big gap between the rich aristocracy and the poor commoners who are the majority of villagers. Nowadays the aristocracy carries on inter-insular trade or climbs the ladder of public administration. The economic condition of the commoners, who are the target of economic development, is gradually improving, as a result of the traditional custom of combining rice-planting with fish-catching during floods. Fishermen bringing their harvest to the market by motorcycle is not a rare sight today. The authority and efficiency of local government are maintained by shifting the feudal traditional bonds to the management of public affairs. The role of the aristocracy as reliable and influential sources of information is therefore indisputable. Their dual role as public officials and traditional leaders makes them the gatekeepers and vital change agents of their communities.

h) The Province of West Java

The Sundanese ethnic group in West Java represents the dedicated Moslem of Java. West Java's main source of income is rice cultivation. Big projects such as the Krakatau Steel factory and many other factories

along the coast will soon change the features of West Java. The previous system of slash-and-burn was replaced by wet rice-planting under the influence of the Javanese Kingdoms of the past. Formerly, West Java was reknowned for its clove growing, which, after a break during the war, is being revived under the development programmes.

The selected samples for this study still reflect the more or less typical rural life of West Java. The Sundanese villagers live in group settlements surrounded by their common arable land. Borders of the administrative unites are drawn on natural settings, such as streams or even great rivers separating one valley (and thus administrative unit) from the other. Several settlements, or kapunduhan, generally form the smallest administrative unit in the governmental system. Due to the clear-cut boundaries and the relatively small village territory, all the inhabitants know each other and establish a close social relationship.

Community solidarity is therefore still very strong, as is shown in their suspicious attitude towards the outsiders or pendatang.

The village government system in the Sundanese villages still follows the traditional administrative system generally found throughout Java and Bali. This grassroot democratic system is maintained by the government to support the administration at sub-district level and higher. The village head elected is sanctioned by the Central government. Thus he is the link between modern administration and the grassroot democracy of former times.

The headman is assisted by a number of unpaid officials, such as the officer-in-charge of social order and security (jagabaya or village-policeman) and the officer-in-charge of religious affairs (amil). With the increasing administrative burden of village government, the headman needed more assistance. In addition to the traditional village secretary (juru tulis), there are the community development officer, the tax-collector and the non-commissioned officer-in-charge of political affairs.

Apart from the village government officials, extension workers in

agricultural problems, family planning and health and other government officials often visit the villages from their stations at sub-district level.

The presence of the various governmental extension workers naturally introduces a new problem, namely the need for an integrated information flow into the villages. In addition, the urban background of the extension workers makes understanding and empathy very difficult in the rural setting. It is therefore not surprising that the majority of the villagers still rely on their headmen as the valid and reliable source of information and wisdom rather than the governmental extension workers.

Moreover, apart from language barriers, most of the villagers still live below the poverty line and are unable to participate actively in the process of modernization in their villages because of time constraints. But unlike the Acehnese or the Buginese, the Sundanese have lived in relatively liberal and democratic atmospheres. Constraints to freedom of expression for the villagers are usually imposed by the village social control which is strictly obeyed in order to maintain harmonious social relationships. As elsewhere in Indonesia, the gotong royong spirit accepts the presence of wealthier people in the village, as long as they observe their social obligations towards the "less favoured". Therefore, in Sundanese villages there are also rich peasants or even landless peasants (tani buruh). The small landholders and landless farmers make up the majority of the villagers.

i) The Province of East Java

Several East Javanese villages were studied not only because they represented the typical poorer rice-growing communities in Java, but also because they (like the West Javanese villages) were already covered by TV transmission.

Historically, rice-growing was introduced by King Airlangga in the 12th century. Hinduism had strongly influenced the local population du-

ring the time of the Hinduistic Kingdom of Majapahit, which influence was also felt in the Eastern part of Indonesia. It is therefore not surprising that even today Hinduistic survivals and Hinduism's cultural impact are still easily identified in the material and spiritual life of the villagers and many historical monuments scattered all over the region are still looked upon as holy places. Yet for centuries the influence of Islam had been tolerated by Majapahit, as evidenced by the Moslem graves within the walls of the capital of Trowulan.

From the 15th century, Islamic teachings obtained strongholds, especially in the coastal areas such as Gresik and Tuban.

But the population of the hinterland and the majority of the agricultural villagers still practise their old customs and beliefs while being good Moslems nevertheless.

Like the other Javanese villagers, the East Javanese live in clear-cut territorial units called desa (village) comprising their grouped settlements and common arable land. Rice is still the main crop cultivated. Being agricultural communities, communal solidarity is maintained through regular collective ceremonies following the agricultural calendar. The village is led by an elected elderman who choses several assistants in chage of administrative work, their irrigation system, social order and security as well as the officer-in-charge of religious affairs.

The headman not only acts generally as the community leader but is also considered to be the most reliable source of information and is popularly known as the source of wisdom. His charisma helps the villagers to overcome their problems, especially by explaining social problems caused by social changes. Although modern means of communication, such as television, have been available for some years, these modern channels only function as means of recreation. Most people turn on their radio sets only to listen to the traditional gamelan orchestra or folk theatre (ludruk), rather than for the news and educational programmes. However, this does not mean that the villagers cut themselves off from news about the outside world, as was found during the survey; but some

TABLE 1

ETHNIC GROUPS

	ACEH		BALI		W. KALIMANTAN		S. SULAWESI		N. SULAWESI		WEST JAVA		EAST JAVA	
	studied village	control village	studied village	control village	studied village	control village	studied village	control village	studied village	control village	studied village	control village	studied village	control village
Aceh	9.43	4.73	-	-	-	-	-	-	-	-	-	-	-	-
Malay	-	-	-	-	3.42	3.30	-	-	-	-	-	-	-	-
Javanese	0.03	-	-	-	0.38	0.06	-	-	0.03	-	0.03	-	9.52	4.73
Madurese	-	-	-	-	0.31	0.09	-	-	-	-	-	-	-	-
Sundanese	-	-	-	0.09	0.15	-	0.03	-	-	-	9.36	4.76	-	-
Balinese	-	-	9.52	4.66	-	0.03	-	-	-	-	-	-	-	-
Buginese	-	-	-	-	0.57	0.25	7.65	5.73	-	-	-	-	-	0.03
Makassarese	-	-	-	-	-	-	1.81	0.03	-	-	-	-	-	-
Minahasan	-	-	-	-	-	-	-	-	9.43	4.69	-	-	-	-
Dayaks	-	-	-	-	0.50	-	-	-	0.06	-	-	-	-	-
Others	0.06	-	-	-	0.12	-	0.03	-	-	0.03	-	-	-	-
No answer	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chinese	-	-	-	-	4.03	1.01	-	-	-	0.03	-	-	-	-
N	300	149	300	150	300	150	300	150	300	150	300	150	300	150

TABLE 2

RELIGION

	ACEH		BALI		W. KALIMANTAN		S. SULAWESI		N. SULAWESI		WEST JAVA		EAST JAVA	
	studied village	control village	studied village	control village	studied village	control village	studied village	control village	studied village	control village	studied village	control village	studied village	control village
Moslem	9,52	4,73	-	-	3,92	3,71	9,52	4,76	0,03	0,03	9,52	4,73	9,33	4,76
Christian	-	-	-	-	0,38	0,06	-	-	9,46	4,73	-	0,03	0,12	-
Catholic	-	-	-	-	0,34	-	-	-	0,03	-	-	-	-	-
Hindu	-	-	9,49	4,76	-	0,03	-	-	-	-	-	-	0,03	-
Cong Fusian	-	-	-	-	3,84	0,95	-	-	-	-	-	-	-	-
Budhists	-	-	-	-	-	-	-	-	-	-	-	-	0,03	-
Other Religion Belief	-	-	-	-	0,03	-	-	-	-	-	-	-	-	-
No answer	-	-	0,03	-	-	-	-	-	-	-	-	-	-	-
N	300	149	300	150	300	150	300	150	300	150	300	150	300	150

items are still discussed with the village headman.

Unlike the Islamic Acehnese and Buginese, the East Javanese villagers were relatively more liberal. Though most of them said that they should not disturb the social harmony of the community, they avoided social obligations by ignoring and not practising village decisions they did not fully agree with. Likewise, village boundaries are no limitation for job opportunites as land scarcity is increasing. No wonder that East Java, with a population density close to 1,000 persons per square kilometre, is one of the target areas of transmigration. Women are very active in economic life and side-by-side with men earn their living either in the agricultural sector or in the informal sector as small-scale traders.

2. Distribution of Television Receivers and People's Responses

Poor economic conditions are another obstacle to rapid distribution of television sets in the rural areas: 80 % of the Indonesian villagers earn a living from agriculture and around 30 % live under subsistence conditions.

Off season and between planting and harvest time they therefore seek other sources of income, often outside their villages. It is not surprising that private ownership of TV-sets remain is restricted to civil servants and priviledged businessmen. For this reason, the government has, since the 2nd year of the second Five-Year Plan, distributed TV-receivers to villagers. Electrification of villages is not expected for some time, and therefore the distribution of public-TV is accompanied by the distribution of generators which are beyond the capacity needed.

Several ways of enjoying TV-programmes have started, as government distribution naturally cannot go as fast as the villagers wish. In South Sulawesi, TV was owned co-operatively and each viewer had to pay Rp. 5,

for one evening in order to collect the money for another TV-set to be placed in a second house, etc. Very often the ownership of receivers precedes technical reception capabilities, thus very high aerials can be seen in remote villages. In Sei Kunyit (West Kalimantan), a high price has to be paid for the 20-metre special aerial. In Minahasa, especially in the target village where the copra and clove harvest brought big profits, the 64 TV sets were also equipped with high aerials.

Indeed, there is a close correlation between economic standards and the ownership of receivers. The wealthy villagers mostly tend to use receivers as status symbols. Programme enjoyment is secondary. Another reason for TV distribution by the government has therefore been to bridge this gap between the rural rich and the rural poor, besides of course the need to bring innovative information into the villages, next to general entertainment.

Based on the preliminary findings during fieldwork in the seven provinces in Indonesia in 1977-1978, it was found that different social and cultural backgrounds strongly influence the grade of social acceptance of the new technology in the respective villages. The presence of public TV encouraged public gatherings among the youth, thus loosening local cultural prescriptions. In areas where values encourage such gatherings, but forbid pregnancy prior to marriage, such meetings are not looked upon as breaking social values.

It has been proved that those who have experienced urban life or who maintain relationships with urban people are generally considered and treated as important sources of information. Accordingly, whether they like it or not, they become an important link in the village communication system.

Television fever has encouraged some active urban businessmen to make money by introducing mobile television shows, combining the enjoyment of watching television with selling their goods, such as modernized traditional medicine and so on. In West Kalimantan, such mobile shows are very popular. Money is earned by TV owners, who hire two or three

persons to carry the receivers and necessary instruments, including the heavy generator or batteries. The more distant the village, the higher the aerial and the more people watch television all night, sometimes there is an audience of 20-30 people. Sometimes television is also hired in connection with a family celebration, replacing the more expensive folk arts. The television show business has been made possible because of the poor means of transportation and the distant location of the villages throughout West Kalimantan.

Private ownership of television decreases the already limited privacy in traditional lives. Whether they like it or not, fellow villagers think it their right to enjoy the entertainment programmes in some neighbour's house. This general description of the spontaneous public responses in the villages raises some questions in connection with the distribution of television receivers in the rural areas of Indonesia.

Based on the 1977/1978 survey in seven provinces, out of the 3.149 respondents only 33.34 % ever watched television. This means that just over one year after the extension of the television system into the rural areas, slightly more than 2/3 of the inhabitants were still beyond the reach of television programmes.

Uneven distribution of the limited number of television sets apparently did not only happen outside Java but also on the island of Java itself. Although the number of television sets in East Java had surprisingly increased during the previous two years, in 1977/1978 to serve 206 households there were only 20 sets in the target villages and 5 in the control villages. The situation was even worse in the village of Kebonabang in the regency of Malang. Out of the 20 receivers sets, 14 were concentrated in two out of the six sub-villages (dukuh), which cover an area not larger than 500 metres in diameter. The reason was the custom of settling in the most fertile or favourable dukuhs, being a transportation link or public administration seat called krajan. It is therefore not surprising that the 14 receivers in the village of Kebonabang were located in the krajan and the other four dukuh were without any receiver. Similar uneven distribution of receivers was also found in

the second target village with its six sets concentrated in the krajan sub-village of Ngajum, which happened also to be the sub-district. In the control village of Taji, the uneven distribution was not so obvious, since the village consisted of only 2 sub-villages and its population was relatively small.

TABLE 3

COMPARISON OF HOUSEHOLDS, SUB-VILLAGES AND ELECTRONIC MASS-MEDIA IN 3 VILLAGES OF EAST JAVA

Village	Sub-village	Household	TV Set	Radio
Kebonabang	6	2,690	14	117
Ngajum	4	2,021	6	125
Taji	2	208	5	37

It is worth of note that in the village of Kegonabang one TV set had been owned by one villager since 1974. The other nine sets were purchased by the owners 2 years ago and in 1978 another additional 4 receivers were bought by the villagers.

The situation for West Kalimantan is as follows:

TABLE 4

COMPARISON OF HOUSEHOLDS, SUB-VILLAGES AND ELECTRONIC MASS-MEDIA IN WEST KALIMANTAN

Village	Sub-village	Household	Population	TV Set	Radio receiver
Sei Pinyuh	12	6,714	31,556	57 (13)	833 (452)
Sei Kunyit	20	3,378	16,213	8 (4)	701 (411)

(x) the figures between brackets indicate additional receivers bought within 1978.

Similar uneven distribution of receivers was also found in West Kalimantan, where 39 out of 57 sets in the target village were concentrated in the sub-district Sei Pinyuh where the sub-district office and village administration activities are located.

The other four out of the 12 sub-villages had no receivers, although the villagers for the last 10 years were able to receive programmes from Kuching (Serawak). In the control village of Sei Kunyit, four out of eight receivers were found in the sub-village of Semudun, while the rest were distributed to four out of the 20 sub-villages. In other words, the other 15 sub-villages were without television receivers. Therefore it is not surprising that "television showbusiness" was invested in the West Kalimantan villages.

The sparse distribution of television receivers to distant sub-villages had a tremendous effect on television experience. Out of the 450 respondents, there were only 87 (19.33 %) who watched television.

Indeed, the means of land transport in West Kalimantan are generally very poor; the rivers are used. Small rivers might even be dry during the dry season, thus enabling "travel by land" upstream. People still live in distant isolated hamlets as labourers on extensive plantations and in neglected gardens. People from neighbouring villages, and often even of the same sub-villages, rarely see each other. These conditions have encouraged the development of isolated hamlets, each showing distinctive economic, social or even ethnic characteristics. It seems that the multi-ethnic composition of rural West Kalimantan was another hindrance to optimal use of television. Public television distribution should therefore take into account the ethnic composition and settlement pattern of the local community.

In some provinces, social norms and cultural values indirectly forbid the villagers to watch television in someone's house at ease, unless invited to do so. In the control village of East Java, for instance, there were 5 television sets owned by local wealthy families but none of the 150 respondents ever watched television. Indeed, it is socially

improper for a commoner to enter the house of a family of ascribed higher status through the front door. If a person is courageous enough to try to watch television in the house of a socially higher family, he must enter through the back door, and pass the most private part of the house to get into the living room where the receiving set is placed. For this reason, he would refrain from doing so. On the other hand, it is socially embarassing if a man of higher status watches television in the houses of families of lower status. He would not therefore sacrifice his social image only for the sake of watching television. In such cases, up-to-date knowledge on national events becomes of secondary importance.

On the other hand, the democratic value system of North Sulawesi villages is no hindrance to enjoying television programmes. The literally open house system enables anybody who feels like it to enter any house only to watch television programmes. Some television owners had even extended their living room to accommodate the extra television viewers. Shop-owners place their receivers where passers-by can watch the programmes and thus stimulate the desire to own a television set.

Such social norms and cultural values have accordingly contributed to the popularization of television in North Sulawesi. In fact, North Sulawesi headed the list with almost 72 % out of the 450 respondents having experienced television. Aceh, with only slightly more than 12 % with television experience, was at the bottom.

It can not therefore be concluded that the number of television sets in a village corresponds to the number of people who watch television. The social norms and topographic situation of a village are vital factors in television experience.

In other provinces the socio-cultural values generally integrated with religious norms, as in Aceh and Bali, have indirect influence on television audiences in the respective communities. The six o'clock programmes are resented by pious Moslems like the Acehnese or Buginese, as the programme overlaps with prayer time. The impacts of Islamic norms

on television viewing is clearly seen during the fasting month of Ramadhan.

The other indirect impact of Islamic norms which are integrated with the local social and cultural values can be concluded from the smaller percentage of female viewers. This contrasts with North Sulawesi where the percentages of male and female viewers are nearly equal. The Muslimats, especially the young and married women, are not supposed to be outside the house after dark. In the target village in Aceh, there were only 22 out of 151, or 14.56%, female respondents, in the target village of West Kalimantan only 1 out of 14 Muslimat, or 7.14%, and in the target village in East Java, only 11 out of 102, or 10.78%. The higher percentage of female viewers in Islamic South Sulawesi is explained by the local social norms, or adat, which give a high status to women. It is also encouraged by the fact that the Buginese live in clusters with a wealthy landlord's big house at the centre surrounded by the houses of his subordinates who work on his agricultural lands. Although the poorer villagers would be reluctant to watch television their landlords' houses as is the case in Java, indigenous patron-client relationship has broken down this barrier. Because of the social structure and the pattern of settlement, it is not difficult for the female villagers to watch television in their master's houses.

In Bali, as in North Sulawesi, the percentage of female television viewers is higher because the Balinese live in clusters which are mostly inhabited by the limited patrilineal extended family. Also, Balinese women enjoy non-discriminative religious norms in their daily social activities, although this equality does not extend to activities in public affairs.

Research methodology and some research findings

For the survey, 3.149 respondents were interviewed: 2.100 in target villages and 1.409 in controlled villages. The calculations were roughly 300 family heads for the target villages, and 150 family heads for the controlled villages, resulting in 2.240 male and 900 female respondents. This situation was beyond expectations, namely that nearly 40 % of the family heads proved to be women.

Obviously this was because the area of research covered some regions where the men worked in the fields when the survey was carried out, or indeed because they worked in their fields away from home for some days, which is not unusual for the regions outside Java, such as Aceh and North Sulawesi. Therefore their wives acted as interviewers/ respondents.

A. Conditions of respondents

Table 4: Status of correspondents were as follows:

Status	Target village	Control village	Total
Not married	5 %	1,87 %	6,87 %
Married	55,83	28,15	83,98
Widowed	5,86	3,31	9,17
Divorced	0,19	0,06	0,05
			100 %

Table 5: Age of respondents

Age	Target village	Control village	Total
15-19 years	2,13	0,63	2,76

Age	Target village	Control village	Total
20-24	4,89	1,90	6,79
25-29	7,91	3,75	11,66
30-34	8,76	3,78	12,54
35-39	9,94	6,45	16,39
40-44	7,94	4,99	12,93
45-49	6,60	3,91	10,51
50-54	5,78	3,05	8,83
55-59	3,97	1,84	5,81
60-64	4,13	1,49	5,62
65-69	2,73	0,82	3,55
70-above	1,91	0,70	2,61
	66,69	33,31	100,00

The age group 30-44 years, reaching 41,86 %, is dominant. If we extend it to 49 years old we reach a total percentage of 52,38 %.

Table 6: Respondents' education

- no schooling	28,84 %
- elementary school	
- not graduated	34,23
- graduated	21,59
- Junior high school	
- not graduated	3,96
- graduated	4,60
- Senior high school	
- not graduated	2,15
- graduated	3,96
- Academic education	
- not graduated	0,73
- graduated	0,28
- passed illiteracy course	2,60

Table 7: Number of family members

Region	Target village	Control village	Total average
Bali	7,04	5,20	6,12
West Kalimantan	6,14	6,06	6,1
Aceh	5,35	4,45	4,9
South Sulawesi	5,32	5,57	5,45
North Sulawesi	5,14	5,60	5,37
East Java	4,90	4,30	4,6
West Java	4,61	5,02	4,82

The largest families are formed in Bali with an average of 6,12 members, followed by South Sulawesi with an average of 5,45.

It is hard to conclude from these data whether media information has influenced family planning, as there is no regular trend of figures of average family membership for either control or target village.

B. Media habits of respondents

In order to know the sources of information and grade of communication with the outside world, the following data were gathered.

Table 8: Sources of information

Media	Target village	Control village	Total average
1. Radio	20,48 %	11,21 %	15,85 %
2. Television	5,68	0,41	3,05
3. Newspaper	1,30	1,17	1,24
4. Neighbour/friend	14,93	5,49	10,21
5. Family	3,27	2,16	2,72
6. Village head	10,41	8,98	9,69
7. Other official	3,52	1,55	2,54

Media	Target village	Control village	Total average
8. Extension worker	0,57	0,15	0,36
9. Informal leader	5,40	1,87	3,64
10. Teacher	0,50	0,6	0,55

There is a remarkable difference in the use of the media as sources of information between the target and the control villages, but radio counts as the first information source for both.

It is also worth noting that the target village seems to be more active in information-seeking than the control village. This activity does not limit itself to media communication but also covers interpersonal communication. Only the teacher seems to play a relatively more important role in the control than in the target village. This might indicate the still traditional respect and wisdom usually ascribed to a school teacher.

The ranking of sources of information is as follows:

1st - radio - 15,85 %
2nd - neighbours - 10,21
3rd - village head - 9,69
4th - informal leader - 3,64
5th - television - 3,05

If table 7 could not prove the influence of the media on family planning, table 8 at least gives some indication of correlation between media use and information-seeking habits. But these data do not suffice to prove that the use of the media had been the leverage for more information-seeking of the influence of media towards other media.

Table 9: Media ownership

Region	TARGET VILLAGE TV	TARGET VILLAGE Radio	CONTROL VILLAGE TV	CONTROL VILLAGE Radio	TOTAL TV	TOTAL Radio
	%	%	%	%	%	%
Aceh	0.33	24.67	1.33	17.33	0.83	2.49	21.0
Bali	0.67	48.0	0.67	24.67	0.67	2.01	36.34
West Kalimantan	12.33	63.0	4.0	57.33	8.17	24.50	60.17
South Sulawesi	1.67	29.0	---	34.0	0.84	2.51	31.5
North Sulawesi	10.0	43.33	20.0	46.67	15.0	45.0	45.0
West Java	1.67	42.33	1.33	45.33	1.5	4.5	43.83
East Java	2.0	25.67	---	16.0	1.0	19.0	20.84

These data show that radio ownership is highest in West Kalimantan (60.17 %) followed by North Sulawesi (45 %), whereas radio ownership is the reverse.

The survey discovered that even before TV Jakarta could reach West Kalimantan, the local population already owned private television sets and were tuned towards Kuching in Serawak (Malaysia); this explains the small difference in ownership of TV sets in the target and control village.

Table 10: TV - viewing habits

Province	Frequency			
	Every day %	Twice a week %	Once a week %	Irregular %
Aceh	7,89	-	6,57	80,26
Bali	2,99	0,59	9,58	86,22
West Kalimantan	21,97	1,09	2,18	73,62
South Sulawesi	4,63	3,31	4,63	84,76
North Sulawesi	10,24	0,90	1,50	86,74

Province	Frequency			
	Every day	Twice a week	Once a week	Irregular
West Java	4,31	0,71	0,71	87,05
East Java	10,71	1,78	1,78	82.14

It seems that, in spite of the distribution of public TV-sets, TV viewing has not become a habit. Irregular viewing is still dominant all over the surveyed regions, with the lowest percentage (but still high) for West Kalimantan. This is in comparison with the habit of everyday viewing reaching 21,97 %.

Comparing the data on the national scale, the TV - viewing and radio-listening habits are as reflected by the respondents.

Table 11

Frequency	Radio	Target TV	Village Radio	Control TV	Village Radio	Total average TV
Every day	18,42 %	3,52 %	19,25 %	0,95 %	18,84 %	2,24 %
3 x weekly	0,61	0,67	0,85	0,19	0,73	0,43
2 x weekly	0,47	0,33	0,95	0,47	0,71	0,4
Once a week	0,47	1,66	1,42	0,95	0,95	1,31
Irregular	46,28	31,66	38,22	18,11	42,25	24,89
Never	33,71	62,14	39,27	79,31	36,49	70,73

Radio-listening is still dominant compared with television-viewing, except for the groups that watch TV once a week or "never".

Table 12: Preferred television programmes

Items	Target village	Control village	Total average
National news	2,38 %	0,76 %	1,57 %
News and Sports	1,70	0,34	1,02
Local news	1,49	0,37	0,93
Sports	1,26	0,17	0,72
Developmental news	1,06	0,30	0,68
Entertainment	0,81	0,23	0,52
International sports events	0,67	0,32	0,50
Drama	0,68	0,27	0,48
National sports events	0,60	0,32	0,46
Popular music	0,63	0,24	0,44
Christian religious forum	0,55	0,15	0,35
Moslem religious forum	0,58	0,09	0,34
Variety shows	0,51	0,07	0,29
Reciting the Qur'an	0,46	0,09	0,28

Although the target villages show higher percentages than the control villages, the percentages of interest are remarkably low. The reason should perhaps be sought in the nature of the television messages which was new in the target villages, programmes of a national character being transmitted from Jakarta.

Table 13: Respondents who had watched television

Province	Male Respondents	Female Respondents	Total
Aceh	12,69 %	2,23 %	14,92 %
Bali	33,56	3,56	37,12
West Kalimantan	19,34	0,89	20,23
South Sulawesi	36,67	9,56	46,23

Province	Male Respondents	Female Respondents	Total
North Sulawesi	37,34	36,45	73,79
West Java	28,22	2,67	30,89
East Java	9,56	2,89	12,45

The highest percentage for TV-viewing was in North Sulawesi, the lowest in East Java.

Except for North Sulawesi the difference in percentages for male and female viewers is remarkable low. Thus the percentages for North Sulawesi are an indicative of the stage of women's emancipation in that locality.

Table 14: Age groups of television viewers (n: 938)

Age group	Total %
15 - 19 years	5,01
20 - 24 years	10,77
25 - 29 years	15, 78
30 - 34 years	13,86
35 - 39 years	15,78
40 - 44 years	11,83
45 - 49 years	10,23
50 - 54 years	5,54
55 - 59 years	4,26
60 - 64 years	3,84
65 - 69 years	2,03
70 years and older	1,07

This table shows that in the rural areas the main television viewers belong to the age group 25 - 49 years (67,48 %), where as the age

group 15 - 19 years only represents 5,01 %, and the age group 20 - 24 years 10,77 %, of the total viewer respondents.

These findings therefore can argue against the resentment that "public TV will spoil youth". It seems that social control in the rural villages by adults is still very strong and it need not be feared for the time that such resentment will become a reality in those areas. However, the argument might be valid for urban youth, especially where social bonds and social control are becoming looser.

The gatekeeper role of parents and local eldermen in the rural areas was therefore positive in this sense.

Table 15: Newspaper-reading habits

Province	Target Village			Control Village			Total Average		
	Yesterday	3 days ago	Last week	Yesterday	3 days ago	Last week	Yesterday	3 days ago	Last week
Aceh	3,33 %	7,33 %	12,33 %	5,56 %	6,67 %	11,33 %	4,45 %	7,0 %	11,83 %
Bali	7,0	8,33	14,0	6,0	4,0	13,33	6,5	6,17	13,67
West Kalimantan	11,0	12,0	19,33	20,0	16,66	24,0	15,55	14,33	21,67
South Sulawesi	4,67	7,33	16,33	4,0	4,0	16,67	4,34	5,67	16,5
North Sulawesi	7,67	20,67	30,33	16,0	16,67	25,33	11,84	18,67	27,83
West Java	3,33	4,0	9,0	5,33	4,67	8,0	4,33	3,75	8,5
East Java	2,33	6,0	10,0	-	-	1,33	1,17	3,0	5,67

Respondents of North Sulawesi seem to be the greatest newspaper readers, followed by respondents of West Kalimantan. Looking at the data, it seems that, as the specification of the target and control village had been based on the extension of television transmission, the habit of reading newspapers is higher in villages where television has not made its entrance. The need for immediate news is supplied by radio.

Table 16: The need for national and local newspapers

Province	Target village				Control village				Total average			
	1	2	3	4	1	2	3	4	1	2	3	4
Aceh	6,0	1,67	8,0	84,33	1,20	0,67	5,33	82,0	3,6	1,17	6,69	83,17
Bali	5,66	12,0	3,0	79,33	12,67	1,33	0,67	85,33	9,2	6,67	1,84	82,33
West Kalimantan	9,66	15,67	0,33	74,33	8,0	17,23	2,67	69,33	8,83	16,55	1,5	71,83
South Sulawesi	5,0	14,67	1,33	79,0	10,0	8,0	0,67	81,33	7,5	11,34	1,0	80,17
North Sulawesi	25,99	9,0	1,67	63,33	27,33	6,0	1,33	65,33	26,65	7,5	1,5	64,33
West Java	5,67	4,67	7,67	81,67	4,0	5,33	4,67	85,33	4,84	5,0	6,17	83,5
East Java	2,66	1,67	1,67	93,33	0,67	0,67	-	96,67	1,67	2,17	0,84	95,0

1 : Jakarta papers
2 : local paper
3 : local paper of other regions
4 : no reading

Newspapers have not reached the rural villages, this is reflected by this table. North Sulawesi is dominated by Jakarta papers, as socially people of this region have always taken an interest in what is happening in Java since Dutch times. It is also generally known that profits from their copra and clove harvests are spent on holidays in the capital of Jakarta and economic centre of Surabaya. Generally, it can be said that those areas showing interest in Jakarta papers are the more economically developed ones and, therefore, that information about policies taken in Jakarta is of importance to them. Although West Kalimantan and South Sulawesi are developing economically it seems that this development has not yet reached the rural areas as much as it has in Bali (through tourism) and North Sulawesi.

TABLE 17

SOURCES OF INFORMATION ON CONSUMPTION GOODS

Information Source	Bath soap	Toothpaste	Detergent	Insecticides	Spices	Cooking oil	Vitamines	Medicines	Milk	Traditional cigarettes	Cigarettes	Ice cream	Beverages	Beer	Canned Food	Ballpoint	Batteries	Shaving equipment	Condome
Coffee shop	1	1	1	1	1	2	2	1	1	1	1	2	1	1	1	1	1	1	3
Friend/neighbour	2	2	2	2	2	1	1	2	2	2	2	1	2	2	2	2	2	2	1
Pedlar	3	5	4	4	4	3	5	4	5	3	3	3	3	-	3	3	4	4	2
Radio	4	3	3	3	3	4	3	3	3	5	5	4	5	4	5	5	3	3	4
Advertisement	5	4	5	5	5	5	4	5	4	4	4	5	4	3	4	4	5	5	5

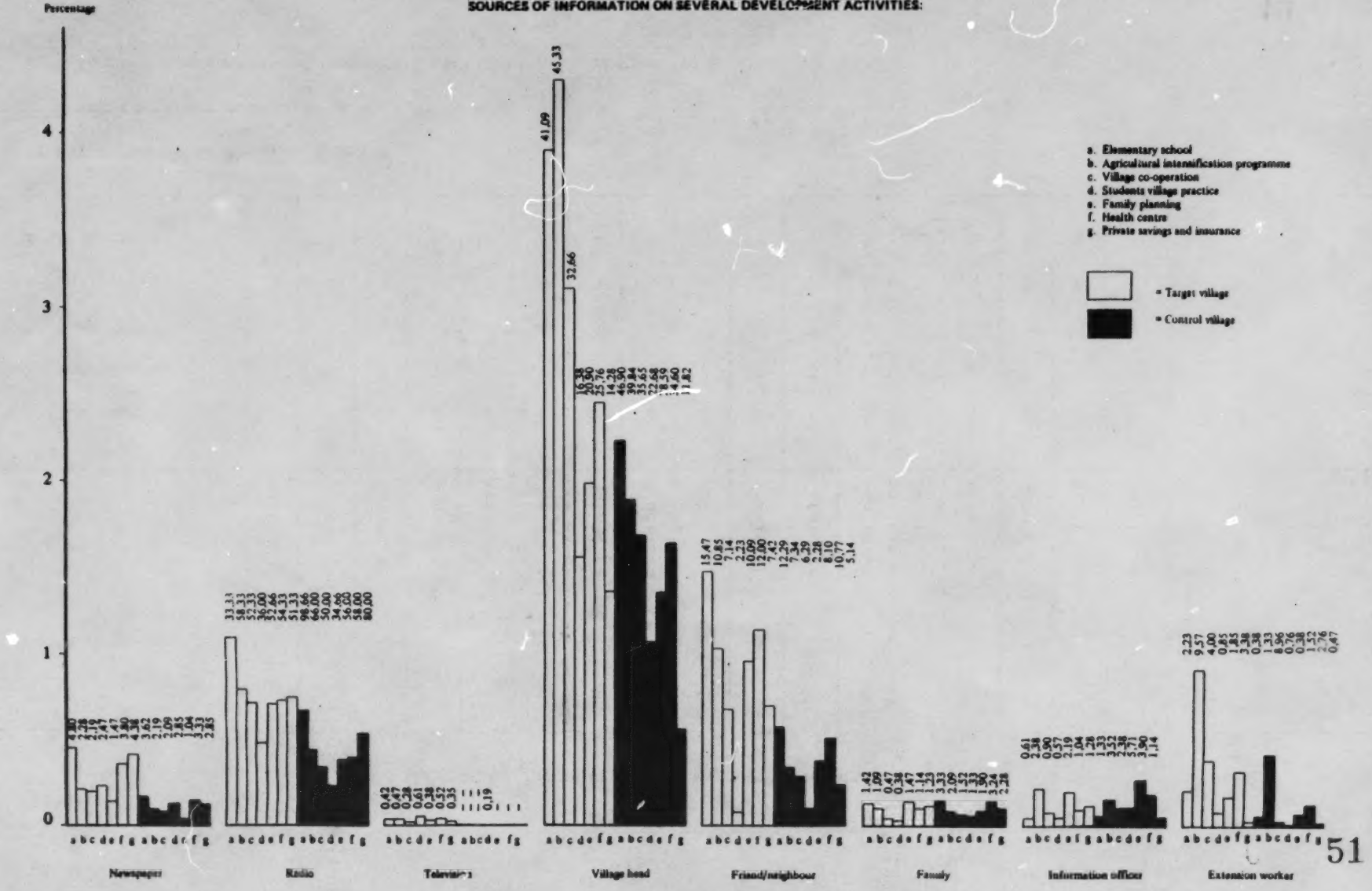
*) Rating was made between 1 and 5:

1 for the least mentioned and

5 for the most mentioned source of information on respective goods.

TABLE 18

SOURCES OF INFORMATION ON SEVERAL DEVELOPMENT ACTIVITIES:



Socio-cultural influence of communication

Communication is part of the socio-cultural system of a community. It is socio-culturally laden and culture and communication influence each other. This is why communication can arouse socio-cultural change. On the other hand, innovative ideas can only be transferred through communication, especially through the existing systems.

In order to measure the impact of development communication, this research has focused on questions of participation; the fostering of national integrity in the social integration process, based on cross cultural communication; educational programmes; the dissemination of new agricultural technologies and new health and family welfare concepts; the pattern of consumption; the shift in cultural values.

Fostering national integrity

Language is one of the means of measuring national integrity. For this reason, respondents were questioned on their use of their ethnic language as well as Bahasa Indonesia itself as a second language.

In order to get a clearer picture of the degree of national integrity so far achieved, the use of Bahsa Indonesia in daily life and as lingua franca was studied. Generally, the figures show that in daily life the ethnic language dominates:

Table 19: Bahasa Indonesia as First Language

Language	Target village	Control village	Total average
Indonesian ethnic language/Malay	3,90	8,0	5,95

Language	Target village	Control village	Total average
Chinese language	40,67	21,33	31,0 *)
Far Eastern language	90,23	88,75	89,49
Other foreign languages	0,33	1,34	0,84

*) Only in West Kalimantan

This table shows that the respondents (of Chinese origin) in West Kalimantan are still using their language in daily life, although they have lived there for generations. Integration has not been very successful here in spite of the use in economic conditions which can be concluded from the data on TV ownership and the habit of newspaper reading; the two components are only comparable with data from North Sulawesi.

Other ethnic Far Eastern groups also still prefer to use their original language in daily life rather than Bahasa Indonesia which only reached 5,95 % of the total respondents.

It seems from the following table that Bahasa Indonesia is more used as a second language (lingua franca):

Table 20: Bahasa Indonesia as Second Language

Language	Target	Control	Total average
Languages of Indonesian ethnic groups	8,20 %	5,14 %	6,67 %
Malay	56,86	51,96	54,41
Chinese	0,28	-	0,14
Other foreign languages (Far Easterners)	0,42	1,43	0,93
Only master own ethnic language	34,24	41,47	37,86

The fact that even as a second language Bahasa Indonesia is not yet spoken by 37,86 % of the respondents (all the surveyed areas) denotes that mass media should still teach Bahasa Indonesia as a "foreign" language, with the ethnic language as a starting point. This is supported by the tendency that Bahasa Indonesia as second language is spoken more in the target villages, e.g., the villages already covered by TV transmission.

Apart from its radio stations, Indonesia has TV production studios at: Medan, Palembang, Jakarta, Jogyakarta, Surabaya, Denpasar, Balikpapan, Ujung Pandang and Manado and should therefore be able to teach Bahasa Indonesia daily.

If we go into more detail to know which areas are not sufficiently using Bahasa Indonesia as the second language, we see that those regions are (excluding the Chinese and other Far Easterners):

Table 21: Regions not sufficiently using Bahasa Indonesia

Region	Target village	Control village	Total average
Aceh	35,67 %	18,12 %	26,90 %
Bali	36,0	30,67	33,34
West Kalimantan	1,3	20,0	10,67
South Sulawesi	62,67	50,67	56,67
North Sulawesi	0,33	52,0	26,17
West Java	43,34	46,0	44,67
East Java	60,33	72,67	66,5

The highest total average for not using Bahasa Indonesia was reached in East Java (66,5 %), followed by South Sulawesi (56,67 %), then West Java (44,67 %).

It should be stressedthat the areas under study are newly "opened" by TV, e.g., previously isolated areas (although now target villages).

This table does not confirm that the introduction of mass media increases national integrity, as can be seen from the case of Aceh, Bali and South Sulawesi, where the use of Bahasa Indonesia (even) as second language is lower than in the control village. This might be because TV use has been too recent in those target villages and thus its impact cannot be seen yet.

Another factor seems to influence the use of Bahasa Indonesia, namely the geographical situation of the village: close to a city or near coastal areas/harbours. It should be remembered here that the choice of target villages was simply on a technical basis, namely 80 kms from the satellite ground station, and did not take into consideration, e.g. whether a small town (sub-district), being a centre of inter-village/regional trade, was already "open" from the economic and social phase of development even prior to TV introduction. Seen from this viewpoint, such a village could theoretically become a "control village", as technically the satellite ground station and therefore TV mass media services cannot reach that area yet.

The opposite can also be true, namely that "closed" villages suddenly become target villages for the only reason that (public) television has been introduced there, because technically they are within the 80 kms range of the ground station.

Indeed it has been the government's policy to combine TV introduction with village electrification. Therefore, it is not impossible that all of a sudden such "closed" villages become target villages.

A temporary conclusion on the research methodology should therefore be: to not only add more criteria to technical considerations alone (80 kms from the ground station), but to find additional criteria in combination with the socio-economic stage of the target villages, showing them with more or less the same stage of socio-economic development. The same applies to the control villages.

Table 22: Reason for maintaining the local language

Opinion	Target village	Control village	Total average
habit	83,64 %	82,74 %	82,94 %
easy to understand	86,0	13,82	49,91
more polite	1,0	0,47	0,74
more casual	1,19	0,28	0,74
social distinction	0,09	0,19	0,14
no opinion	2,28	2,47	2,38

The reason for maintaining the use of their local language seems to be habit plus the fact that they have no problems/no need for extra efforts in using it. Such reasons as "more casual" and "social distinction" or even politeness do not seem to play an important role.

This in the case of developing the national language or even the teaching of Bahasa Indonesia, TV and radio do have an important role, since newspaper reading has not become a habit in the rural areas. The more closed villages in Bali and Aceh, and to some degree also in South Sulawesi, are more inclined to use their ethnic languages because of the still strong influence of tradition and traditional institutions in their daily life.

Another factor nurturing tradition and "localness" is the orientation towards religion, especially in regions where religion and tradition have been integrated such as is in Aceh and South Sulawesi, where being an Acehnese or Buginese nowadays means above all being a good Moslem.

Thus tradition and religion determine the attitude towards education, and education in turn influences the speed of adopting new values and attitudes and thus determines the level of "openess" and phase of development.

The development of education

Education is believed to be the leverage towards a better income and is therefore encouraged by the government through communication. It is hoped that information about where and how to benefit from the development facilities provided by the government can improve the population's income. At the same time innovative information can be received via media communication by the population.

Satellite communication will furthermore be utilized by educational programmes not only in teaching new skills, but in the 3rd Five-Year Plan it will be used for out-of-school formal education. This step had to be taken since the number of elementary school pupils reached 19.2 million at the end of 1978, for which the 41,000 school buildings built in the 2nd Five-Year Plan do not suffice.

Results of research in this field indicate that village communities in the five provinces under study equally feel the need for education. Many respondents have expressed the desire to have better education for their children than they themselves had ever enjoyed. Generally speaking, education in the villages of the five provinces under study has been low. Except for North Sulawesi, many respondents never attended public schools, for which the highest figures are found in Aceh, namely 58,78 % (control village) and 33 % (target village).

The lowest figures are recorded for North Sulawesi, namely 0,67 % (target village) and 3,33 % (control village).

An interesting fact is shown by West Kalimantan, where the target village, which has a great number of Chinese respondents, recorded a sufficiently high percentage (59,33 %) for people having enjoyed formal education, while its control village, where the Malay population is dominant, recorded a lower percentage, namely 50 %.

The small number of respondents with a formal education in Aceh and West Kalimantan is counter-balanced by the traditional religious

schools called madrasah or pesantren. In this matter, Aceh is at the top of the list followed by West Kalimantan, whereas for North Sulawesi the role of such traditional religious schools - whether Islamic or Christian - is significant.

The level and system of education show a close relationship with the need for printed media, such as newspapers. In Aceh, 88,50 % (control village) and 69,67 % (target village) of respondents said they had never read newspapers, while the figures for Bali are 73,33 % (target village) and 72,67 % (control village). The lowest figures were recorded in North Sulawesi, namely 27,85 % (target village) and 38,67 % (control village).

It is evident from these facts that communication through the printed media in Aceh and Bali has been less effective than in North Sulawesi.

From the explanation given above, there are several interesting facts worth attention. With the exception of North Sulawesi, the villages in the other four provinces have not enjoyed sufficient education, yet the attitude of the respondents favours normal education. This desire was strong in South Sulawesi and Bali, but especially in Aceh. However, a different attitude is found in North Sulawesi and West Kalimantan, where the level and choice of future education is left to the children as is reflected in the answer "it's up to the children".

The dissemination of information on new agricultural technologies

A characteristic feature of the Indonesian agricultural village is an agricultural economy. The whole village is absorbed in production, thus creating socio-production relationships with simple technology. Additional sources of income are handicrafts or other occupations, only some respondents are teachers, religious teachers, traders and labourers.

The decreasing amount of arable land aggrevates the subsistence level of economy of the rural communities, thus adding to their poverty. Therefore the improvement of their earnings depends on two things, namely, the choice of a new source of income through new skills outside the agricultural sector or the improvement of their agricultural production and harvest technology.

It is in this context that the introduction of appropriate technology through development communication programmes can support the improvement of the conditions of the rural population.

Participation development by rural communities will depend on the relevancy of the introduced programmes and the benefit they can expect from the innovations.

The Bimas/Inmas (the mass programme of agricultural guidance and intensification) in the villages under study have obviously been successful. Results of this and other previous surveys indicate that they consider increased agricultural production to be the main benefit of these programmes. Farmers in Bali are foremost in giving such an evaluation. Except in the target village of West Kalimantan, rural communities in the other provinces also give a very high evaluation to the programmes.

Such a positive evaluation is partly due to effective communication of information, as indicated by their answers. When asked from which sources they obtained the information, they generally mentioned the four sources: Village head, agricultural extension worker, radio and information officers.

In this respect, the village head is considered to be the most effective communicator, followed by the agricultural extension worker. Thus traditional bonds and the status of the village head are not to be overlooked, whereas demonstration of innovations is more successful than oral explanations.

Participation of the community in BUUD/KUD (Village Co-operative) seems less enthusiastic than participation in Bimas/Inmas activities.

Important sources of information on these programmes are the Village-head, the managers of BUUD/KUD, radio, the agricultural intension workers and information officers. There is no doubt that the government and its apparatus have so far been the dominant factor in agricultural development efforts, including the dissemination of new agricultural technologies starting from planning down to the widest dissemination of information and participation motivation through communication.

Family health and welfare

Family health and welfare seem to have received considerable attention from the Government in the last few years. Various efforts have been made in this direction, such as the combatting of contagious diseases, and the expansion and improvement of health and family planning services. Participation in and use of the health and family planning services offered are comparatively new for the rural areas under study. Success in implementation, therefore, depends on the ability to communicate effectively and explaining the meaning and benefits of such endeavours.

Changes or improvements in the fields of health and family welfare also involve changes of attitudes and conducts which more or less affect the existing systems of cultural values.

Health and family welfare includes positive attitudes towards sanitation, nutritious food and sage water.

When respondents in the five provinces were asked whether they boiled their drinking water, the majority of them (91,66 % in the target villages and 93,71 % in the control villages) replied "yes".

From the point of view of combating contagious diseases, Government efforts seem to be successful. When respondents were asked whether they had ever received anti-smallpox vaccinations and chotypa and BCG injections, a majority replied in the affirmative, with the average number for smallpox 53,67 % (target villages and 54,62 % (control villages), for BCG 29,43 % (target villages) and 32,53 % (control villages). The number of those who had never received such vaccinations/injections, except for BCG, was very small.

From this explanation it can be seen that attitudes and orientations towards medical treatments have already improved, especially in North Sulawesi, Aceh and the target villages of Bali, West Kalimantan and South Sulawesi.

The situation is somewhat different when it comes to childbirth. On the average more respondents in the control villages prefer to go to the traditional midwives (47,88 %), while in the target villages respondents choose to go to the doctor of midwife. Doctors/midwives are more popular in the target villages (average percentage 45,31 %) as compared with control villages (39,27 %).

Public Health Centres, Puskesmas, are most popular in the rural areas of Bali, where 66,67 % of respondents in the control villages and 58,86 % in the target villages choose to go to health centres for medical treatment.

In Aceh and in the control villages of West Kalimantan, the Puskesmas are also popular (50 %), while in South Sulawesi and the target villages of West Kalimantan the popularity percentage is still above 40 %.

The problem of health and family welfare could also be viewed from the interest shown in the family planning programme (KB) - the desire to have a small number of children. Results of research indicate that rural communities in Bali are most keen in carrying out family planning, followed by North Sulawesi and South Sulawesi. Family planning has started

to be implemented in West Kalimantan, although still to a very low extent, while in Aceh it can be said that no family planning has yet been carried out at all.

When asked about their sources of information on family planning, most respondents referred to the family planning officers and the information officers as well as the mass media. This result of research in general indicates that the existence of profound communication on conducting family planning has influenced the community's attitude towards implementing it. This can be seen clearly, especially in Bali and to a certain degree in North Sulawesi, South Sulawesi, and in the target villages of West Kalimantan. In Bali, the family planning approach had been integrated into the traditional banjar (village system), which explains its successful implementation.

Somewhat of an exception is the control village of West Kalimantan where the knowledge of the majority of respondents about family planning was good, but with a low participation. It is clear that the problem here does not lie solely in communication, but rather the religious values and local tradition of the population. Yet, although South Sulawesi is also known for its strong adherence to religion and tradition, the attitude towards this programme has been positive, as can be seen from the number of affirmative answers of respondents participating in family planning through pills.

Construction and public works

Construction works cover a wide range. But this research limited itself to programmes initiated by the government which have already been or are still being carried out.

Respondents were asked about eight development efforts: the construction of the InPres (Presidential Instruction) Projects, Primary School, Bimas/Inmas, BUUD/KUD, BIPIK and small credits like Candak kulak

and KIK as well as family planning, Puskesmas and Tabanas/Taska. Answers to questions on their sources of information on these programmes are given in table 18.

For these development efforts, the most ascribed sources of information have been the radio, village-heads, information and family planning officers, followed by the traditional communication systems. Television, having been recently introduced, can hardly be counted as a source of information.

Interesting in this respect is the small role played by adat leaders (the average below $ 5) and religious leaders (average lower than 1 %). The conclusions is that the traditional communications have virtually not been much involved or predisposed to participation in development.

Also interesting was the answer that quite a number of respondents have never discussed these development programmes with others or even heard about them. On the average, the combined figures for these two groups is 53,98 % (target village) and 44,67 % (control village).

This situation could be improved if more adat and religious leaders were involved in a more meaningful way. In other words, improved utilization of the components of traditional communicators could increase positive attitudes and thus participation in development.

Pattern of consumption

It is often assumed that the development of communication changes the pattern of consumption of the community. The communication media are often blamed for an increased consumption habit because the new products introduced by them create an increased desire for their consumption, often beyond the financial capabilities of the people. It is feared that such an attitude is geared to unnecessary consumption and an unne-

cessary increase of (new) felt needs.

This research also studied the problem of debts. A large majority answered that the money was needed to buy daily necessities, to meet trade efforts or to meet expenditures for education.

Only very few respondents replied that the money was needed for religious and social festivities.

Also studied was the use of eventual savings. The most interesting replies were that the money was saved in the form of jewels or that the savings were "kept at home or in a money box". Savings in the form of Tabanas/Taska (savings at the bank) occupied a third place in the ranking, followed by the reply that "the money was used to finance their small sales".

The conslusion can be drawn that extra money is saved and seldom reinvested to increase production needs.

The consumption pattern of the community was also tested through questions on how a supposed amount of Rp. 100,000.- would be used. The replies indicated that an average of 33 % of the respondents gave priority to house repairs, especially in the control villages of Bali, Aceh and South Sulawesi. Second priority was given to trade investment, which answer was prominent in the target villages in West Kalimantan, North and South Sulawesi. The third choice of spending was on land and property followed by the fourth on expenditures needed for education. Very few replies were that the extra money would be used to buy a radio or television set of for travelling.

It is quite clear that the consumption pattern of the rural communities in the five provinces very strongly indicates an orientation to primary needs, such as house repairs, trade investment or education.

Do mass communication media have an influence on the pattern of consumption? This was examined through questions on how knowledge was

obtained about 23 kinds of consumption goods. The table below shows that the average percentage of respondents who had never heard about a certain product was larger in the control villages (25,95 %) than in the target villages (15,34 %).

Of the three kinds of mass media, e.g., radio, newspapers and television, radio occupies the top position, although in the overall list it only occupies third place with 10,02 % in the control villages and 6,57 % in the target village.

Newspapers and magazines could be neglected as sources of information in this respect. The reasons are obvious, namely: (1) the limited number of goods advertised in the mass media and (2) the limited number of respondents who read newspapers or magazines.

Table 23: Some information on 23 kinds of consumption goods

	Average (National)	
	Target village (%)	Control Village (%)
Advertisements in stalls/shops	40,92	30,92
Friends/relatives	19,64	16,87
Radio advertisements	6,57	10,02
Outdoor advertisements	4,13	8,57
Newspaper/magazine advertisements	0,69	0,50
Television advertisements	0,28	0,10
Others	12,43	7,47
Never heard	15,34	25,95

It would be no exaggeration to say that advertisements through radio and television generally have a more profound influence in changing the consumption pattern of the community. Advertisements through television show a greater influence than advertisements through radio.

Television programmes visually showing new or luxury goods are believed to be influential in shaping taste and therefore can change the consumption pattern of viewers. It is feared that frequent exposure of luxury goods to rural communities living under subsistence level combined with a low education might create psychological and socio-cultural shocks. So far this research study has not revealed this, perhaps because of the short interval between the introduction of television into the villages and the time of field research.

The shift of socio-cultural values

At this first stage of research it is indeed difficult to picture with certainty the direction of the shift of socio-cultural values in rural communities as the result of the intensified communication. This is especially due to the lack of quantitative and qualitative information which can be used as comparative basic material.

The available data at present can be classified as base-line data which in future could be used as comparative material for newly obtained data. Through comparison of such data over a longer period it is expected that a clearer picture can be obtained of the shift of socio-cultural values. Repeated studies of some communities over a certain length of time, especially before and after the introduction of television broadcastings will be very helpful.

The fact that the rural communities under study have different socio-cultural backgrounds, such as religion and traditions, will provide a deeper understanding of possible trends of change of the different backgrounds and social settings.

Such repeated research of different socio-cultural communities will give information on how they develop their own systems of communication. It will yield information on the opinions or views of the communities themselves and therefore make it possible to measure their awareness of

the process of change in the socio-cultural values to which they have so far adhered to, with religion and traditions as their source.

This study also asked respondents about the behaviour of the younger generation measured from the religious and traditional point of view.

Bali was the only area where the majority of respondents contended that the behaviour of young people at present was still within the bounds of religion and traditions, namely 75,33 % for the target and 92 % for the control village. The lowest percentage was recorded by West Kalimantan (6 % for the target and 8 % for the control village). The highest percentages for answers saying that the behaviour was not in line with religion were given by the control villages in Aceh (37,33 %) and West Kalimantan (43,33%) followed by the target villages of South Sulawesi (39,67 %) and North Sulawesi (27,67 %).

A difference should be noted between observed deviation from religion and deviation from tradition. It seems that there is more resentment towards the former than towards the latter. Where religious values and traditional values have merged together the figures for agreement or disagreement in both are nearly equal.

Table 24: Youth deviation from Religion and Tradition

Province	Target village		Control village		Total average	
	religion %	tradition %	religion %	tradition %	religion %	tradition %
Aceh	32	26,33	37,33	23,33	34,67	24,83
Bali	2	1,67	-	-	1	0,84
West Kalimantan	33	33,67	43,33	16,67	38,17	25,17
South Sulawesi	39,67	39,67	6	6,67	22,84	23,17
North Sulawesi	22,33	19,33	27,67	50	25	34,67
West Java	12	9,67	17,33	15,33	14,67	12,5
East Java	11,67	12,67	0,67	-	6,17	6,34

The conclusions are that social charge is just beginning in West Kalimantan's and South Sulawesi's target villages, followed by Aceh. This process is even more visible in the more inland areas of West Kalimantan. On the contrary, the situation in West and East Java shows that the deviations from religion are not considered seriously, indicating that social change has reached a further stage here.

To the question what factors determine the success or improvement of life, respondents generally replied "exertion or hard work".

If in other provinces the majority of respondents gave a similar reply, the percentage in West Kalimantan was not very high, namely, 40,33 % (target village) and 42,67 % (control village).

The number of those replying "luck" was quite high in the target villages of Aceh (26,33 %) and West Kalimantan (20,33 %) and the control villages of South Sulawesi (20,27 %) and North Sulawesi (18 %).

A check was also made on how the respondents spent their leisure time. The answers were as follows:

Table 25: Leisure-time activities

Activity	target village %	control village %	total average %
film-watching	0,38	0,44	0,41
TV-watching	0,53	0,38	0,45
radio-listening	3,23	1,81	2,52
reading	3,81	1,84	2,83
sauntering	5,01	2,0	3,51
bible/Qur'an reading	3,65	1,68	2,67
cleaning the house	14,83	9,24	12,04
learning/teaching the children	0,28	2,66	1,47
relaxing	21,14	9,90	15,52
others	11,40	4,82	8,11

Attention should be given to the activities "cleaning the house", "relax" and "others", as the areas being studied are rural areas. The percentage for "relax" is higher in the target villages (21,14 %) than in the control villages (9,90 %).

The percentage for film-watching (although equally low) is still higher in the control village. This corresponds with the general picture all over Indonesia, leisure time is often spent on film watching in the nearest town.

The stage of "openness" of the villages was studied in two aspects, namely the wish to visit other towns and the purpose of such visits. Results were as follows:

Table 26: Wish to visit other towns

Destination	target village %	control village %	total average %
big towns of Indonesia	13,91	7,59	10,75
provincial capital	6,03	4	5,02
district capital	4,26	4,29	4,28
pilgrimage to Mecca	4,41	3,94	4,18
have visited some of the above towns	20,45	5,05	12,75
no wish to go outside village	11,88	5,87	8,87
blank	5,75	2,57	4,16

The percentages of the target villages are generally higher, which is indeed a reflection of their stage of "openness" in terms of transportation facilities.

Respondents of the control and target villages seem to have visited the district capital quite often, for which reason the wish to go there is small. Those who within 6 months prior to the survey had visited

the district capital were 19,33 % of the target village and only 7,74 % of the control village.

However, it is striking that the wish to go to Mecca is small, which is probably caused by their awareness of their very limited, even insufficient, funds. But the percentage of the target village is remarkably higher than that of the control village.

It is also remarkable that even in the target village the wish to stay in the village is still high, namely 11,88 %.

The wish to visit towns was studied in connection with the purpose of such a visit.

Table 27: Purpose of visiting towns

Purpose	target village %	control village %	total average %
sightseeing	14,74	10,73	12,74
visit relatives	15,37	6,22	10,80
pilgrimage (to Mecca)	4,41	4,10	4,26
trade	6,41	1,40	3,91
other purposes	25,76	10,86	18,31

There is no clear picture of a felt need to visit towns, as can be concluded from the answer "other purpose", which reached a high percentage in both target and control village.

Only target villages show a comparatively high percentage (15,37 %) of having relatives in those areas as the purpose of their visit.

The frequency of visiting other areas was also studied, giving the following answers:

Table 28: Frequency of visits outside the village

Frequency	target village %	control village %	total average %
once a year and seldom	10,23	6,13	8,18
twice a year	0,70	8,83	0,77
once a month	3,62	1,43	2,53
once in 2-3 months	2,25	1,14	1,70
once in 4-6 months	1,84	0,67	1,26
once a week	1,21	0,41	0,81
never	7,27	2,76	5,02
no relatives outside the village	39,57	19,94	29,76

Again, these figures show that there seems to be no felt need to visit neighbouring towns, as such visits are still determined by having relatives outside the village or not. It is noteworthy that the percentage of respondents in the target village having no relatives outside the village is quite high (39,57 %) compared with the control village (19,94 %). A further study should go deeper into the matter, although a guess might be that the target village for the time being has reached a certain optimum economic and social stability and therefore the need for urbanization is still small.

In contrast, poverty in the control village might be worse to such an extent that another table shows in fact that they do have relatives outside the village with whom they correspond via letters, oral messages via others as is shown in table 29.

Table 29: Contact with relatives outside the village

Contact means	target village %	control village %	total average %
by letter	31,57	29,74	30,66
oral message via others	7,95	13,73	10,84

Contact means	target village %	control village %	total average %
other means	0,67	0,57	0,62
no contact at all	59,81	55,96	57,89

This table shows that oral messages via others are an important means of communication for the target and control villages with their relatives working in urban areas, namely 26,23 % for the target village and 12 % for the control village.

It should be noted that the Indonesian family system is the extended (large family) system, so percentages in this table may be higher than they would be for relatives in Western terms.

If we try to apply Daniel Lerner's theory on the correlation between urbanization and reading habit/literacy, we can only come to the conclusion that the available data prove that the correlation does exist if combined with the previous data on newspaper-reading.

Table 30

Activity	target village %	control village %	total average %
letter-writing (to relatives outside village)	31,57	29,74	30,66
newspaper-reading	18,33	17,31	17,82
magazine-reading	15,05	13,54	14,30

If we substitute the 31,57 % (target village) and 29,74 % (control village) or total average of 30,66 % of letter-writing to relatives outside the village for the percentages for urbanization, we get the follo-

wing table:

Table 31

Item	target village %	control village %	total average %
urbanization	31,57	29,74	30,66
literacy:	64,95	60,59	62,78
- letter-writing	(31,57)	(29,74)	(30,66)
- newspaper-reading	(18,33)	(17,31)	(17,82)
- magazine-reading	(15,05)	(13,54)	(14,30)

If Daniel Lerner stipulated a 10 % urbanization with 25 % literacy and a fast growing reading capability for urbanization above 25 %, these findings have shown that both for the target and control villages the literacy percentage has been twice the urbanization percentages.

Types of communication network in Indonesia

The dissemination of information in the villages depends significantly on interpersonal communication.

A chain of this interpersonal communication builds the local communication network. There are several types of interpersonal communication networks operating in the villages. The introduction and spread of mass media, printed media (newspapers), radio and television might have a certain influence on existing types of communication network. It is assessed that it may strengthen a certain type and weaken another.

It may be instrumental in developing new kinds of network or in abolishing the existing ones. It is also within the scope of this study to discover the possible influence of television on the various types of communication networks already operating in the villages. At the same time, this knowledge will give a better understanding of how the communication systems work together or are interlinked with one another.

In addition to the linked-up traditional interpersonal networks, an important communication network in the Indonesian village is the administration communication network. It is basically the web of the village administration which, being part of the governmental hierarchy, is an important channel of innovation/communication. As part of the public administration network, its main function is to disseminate information (policies) originating from higher levels to lower administrative units, such as the subdistricts and villages. The communities below village level, known as pedukuhan or kampung, are outside this hierarchy, although their self-organization is supported by the units. At the same time, the lower office of keuchik also becomes less attractive, because it lacks government sanction.*)

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*) In Bali, where village borders do not always coincide with banjar borders, the same relationship between Banjar-head and village head is at hand.

The introduction and distribution of television and radio into the villages raises the question whether it weakens or strengthens the administrative communication network. Our preliminary findings seem to suggest that it has not weakened it. In some of the villages, television appears to have strengthened the administrative network, partly because the village head is amongst the first to be supplied with public TV by the Department of Interior Affairs. This naturally enables him to be in possession of the most recent information which adds to his power, as he is "more knowledgeable" than the others. The presence of a TV set in his home also adds to his social status.

Apart from interpersonal and administrative communication networks there are other types operating in the villages. One is called the adat network, meaning communication network based on the existing traditional ties. In some of the villages this adat network is now difficult to trace and for that reason it appears to have become less significant. In Aceh and Bali, adat and religion (Islam in Aceh, Hindu Dharma in Bali) are generally regarded by the people as inseparable from each other. Since the influence of religion seems to be the stronger, the practices of adat have been evolutionarily incorporated into it. This network can be classified as the traditional communication network (Schramm).

In North Sulawesi, the apparently successful process of modernization seems to have weakened the adat.

Observation in the villages in North Sulawesi revealed that the village head is the most respected person and the focus of village attention and activities.

Apparently, most of the village heads under study were known to be better informed than most of their fellow villagers. A typical village head usually subscribes to newspapers, owns a radio and a TV set, and in addition obtain information directly from the higher administrative hierarchy or other government agencies above village level, such as the sub-district and district. However, being an administrative network and hierarchical in nature, information flows mostly downwards and

less upwards.

The nature of the administration communication network differs from village to village, and from province to province.

Research findings proved that this type of communication network appears to dominate in North Sulawesi, Bali, East and West Java. The weakest (but, in comparison with the other types of communication network, still very strong) administrative communication network is found in Aceh. One factor for this appears to be the Aceh social structure which shows strong competition between the keuckik (sub-village head) and the ulama (religious head). Both traditionally have great influence in their sub-villages and thus the so-called village head (known as Mukim) limits his activities to co-ordinating the keuchiks, being less powerful and influential than the village head in, for example, North Sulawesi or Java. For that matter, the office of mukim is becoming less attractive. Consequently, in Aceh this position is usually filled by a less knowledgeable influential person.

The colonial administrative system has incorporated the adat administrative structure of Hukum Besar (sub-district head) and Hukum Tua (village head) into the administrative system. As such, their traditional influence has benefited from the modern administrative network. In this sense, the sub-district head (Hukum Besar) especially is more than just an agent of the modern governmental system, because in older days his position equalled that of the chief of the clan. A similar situation seems to be true also in many other parts of Indonesia, including Java and Bali, where the village head personifies rudimentary power of the traditional social and power structure.

Another, fourth, type of communication network is the one based on religious and ties. This type is found in fanatic Moslems areas as well as in populations still heavily under Hinduistic influence and usually centres around religious leaders (ulama/priests). The information it disseminates is primarily limited to religious matters, but, since many aspects of daily life have direct or indirect connection with religion,

this network appears to have been able to maintain its own significance. As mentioned earlier, from time to time the head of the village uses this religion network to disseminate non-religious information, either by contacting the religious leaders or by delivering speeches during religious ceremonies.

The degree of importance of this religious network also differs from village to village. It seems to be as important in the Christian villages of North Sulawesi as in the Muslim villages of Aceh or in the Hindu Dharma villages of Bali.

In these provinces, people tend to take their religion very seriously. Very often the centres of communication and innovation are the Islamic pesantren which are headed by a kiayi. This is generally the case in East Java where the spread of innovation goes together with the spread of religion, carried out by modern-oriented pesantrens and their ex-pupils scattered all over the region.

A fifth type of communicative network is what is called the social network, based on village community activities such as Rembug Desa (Village Assembly), Lembaga Sosial Desa (Village Social Co-ordinator) and Pendidikan Kesehatan Keluarga (Family health education). These social activities follow the traditional techniques of communication, such as mapalus (North Sulawesi) and arisan (Java), but are linked up with the administrative network starting from village level. Traditional networks of communication in economic/agricultural fields, such as those found in Bali, are the subak system and the previously mentioned Sekah (village professional activities), usually in arts and handicrafts.

Since Law No. 3 of 1975 limits party political activities to subdistrict level, interpersonal communications play a greater part for political purposes at this level. This interpersonal communication generally centres around village intellectuals who are often school teachers or religious leaders.

An interesting type of communication occurs around the warung kopi

(coffee house), which acts as a communication forum and seems to be leaderless. In some cases (Aceh), the role of the coffee house owner is insignificant, partly because he is busy attending to his business. In other cases (North Sulawesi), the owner becomes an active participant in the system. A new aspect of this warung kopi forum is the presence of a TV set. These TV-sets, especially in Aceh, instantly attract people to the coffee house, as can be shown in the marked increase of its clients. For the time being, the TV set is a novelty which draws clients to the warung kopi. How long this will last, will naturally depend on the slow or rapid increase in the number of TV sets. Nevertheless, the coffee shop as a communication forum will continue to exist, as it has always done in the past.

As the government encourages village activities such as the Rembug Desa, Pramuka (Scouts movements), karang Taruna (youth sports and skills increase), Pendidikan Kesejahteraan Keluarga (family health education) it is expected that via the co-ordination of Lembaga Sosial Desa (at sub-district level) and the koperasi Unit Desa (village co-operatives co-ordinated at sub-district level), the traditional and social communication network at village level will gradually be linked up with modern communication systems.

Nowadays villagers belong to more than one of these communication forums and thus through inter-linkages the knowledge of the village population will be increased.

Based on the above discussion, the preliminary qualitative findings suggest that it is difficult to measure the actual impact of TV upon village communication, as many forces and efforts are working together to update the knowledge of the village population.

However, it is striking that the interpersonal traditional links are maintained and still flourish alongside the administrative communication network.

The official network centres around the head of the village, who

has a number of ways of creating a chain of inter-personal (face-to-face) contacts with the villagers. One way is through his (her) several assistants.

In North Sulawesi, one of these assistants is called tukang plakat (information officer), in Sumatera he is called the pembawa berita (news bringer). As clearly indicated by his official title, his main job is to give information to the villagers, which is usually done through a series of face-to-face tables. This is the commonly practiced administrative communication technique at village level.

Since the government plays a decisive role in societal development, the office of the village head is very powerful and influential, as he is selected by the people and sanctioned by the government at the same time. He therefore combines traditional with modern power, especially if he is descended from the old local nobility. He can use power and influence to establish direct contacts with his villagers. He can gather them for a village meeting, or he can confer with other eldermen/village influentials such as the religious leader, the local traditional leaders and many others.

If he also possesses additional qualities such as personality, being knowledgeable on many matters (including religion and tradition/adat), he will gain in importance. His power grows with the answers he gives to people's questions, depending on the range of subjects such as education, family planning, agricultural problems, etc. If our researchers found a marked declined in the adat network, this has not been a new phenomenon but was already underway even before the introduction of television in the respective areas.

Thus it can be said that TV as a newly introduced communication medium in the villages has strengthened and supported the adat network as well as the administrative network, the key issue being that both the formal and the informal leaders obtained their TV-sets almost simultaneously: the informal leaders often through trade relations and the formal leaders directly from the government.

The introduction of television seems to have supported the existing social structures in the rural areas, although bringing more information to everyone than before.

How will television in the future influence the processes of change in the rural communities? The answer seems to lie not in the physical presence of TV but more in the value system of the messages transmitted through this medium. Since television is run by the government, it does seem to have the monopoly in determining the contents of its various programmes. Accordingly, the government is in a position to use this medium to speed up or, if it wants, slow down the processes of change. This will be largely determined by its policies and development goals, and by its ability to find a viable communication strategy to assist or facilitate the implementation of those policies. A viable communication strategy for Indonesia requires, among other things, a better and thorough understanding of the pluralistic background of its society, each with its own way of responding to change and innovation.

Conclusion

The first results of a two-year repeated survey on the socio-cultural impact of television in the same control and target villages in the rural areas of five provinces in Indonesia indicate that at present the traditional (old) communication system exists side by side with the modern (new) communication system. Radio and television, as well as newspapers, have strengthened the position of the communicators and gatekeepers of the traditional as well as the modern communication system, by increasing their knowledge.

It is worth mentioning that there is a national tendency for informal leaders at village level to have a higher level of education than their partners, the formal leaders. This has been proved by many other social surveys. Therefore it can be concluded that the informal leaders have been among the first to benefit (based on their local financial situation) from governmental efforts to enlarge the opportunities for formal education.

The strengthening of modern mass media for both the traditional and modern communication systems seems to stem from this condition. An additional conclusion is that, contrary to the personnel of the public administration in rural areas, the process of regeneration of social leadership has been quicker and smoother outside the public administration "leader".

A further conclusion is that in homogeneous areas the traditional communication system which is part of the local culture (as in Aceh and Bali), undergoes some modification in the positive sense. This is unavoidable as visits to neighbouring towns increase as a result of improvements in transport facilities and opportunities. The effect of such visits and contacts with urban areas will naturally be to change the values previously adhered to.

On the other hand, in areas where the population is quite heterogenous such as in West Kalimantan, a new system of inter-traditional

communication systems has developed, which is capable of establishing inter-ethnic-group communication with their different cultural backgrounds, although still maintaining the original ethnic traditional communication system of each tribe. Thus for the Chinese minorities, for example, their communication system still reflects the cultural heritage of their ancestors; the same is valid for the Malays and other Indonesian ethnic groups. Despite this fact, because of their need for inter-racial communication in West Kalimantan a system capable of bringing about communication between the racial groups is developing.

Thus it can be said that modern media politically build the supra structure of communication, supporting both the traditional and administrative communication systems. The traditional communication system in its turn is growing into an inter-ethnic communication system, but still maintains the indigenous ethnic communication system. This finding therefore supports the strategy that development should not only be understood in material terms but should meet the social and mental happiness of the Indonesians, in accordance with the State Ideology of Panchasila.

Traditional Communication System

In a traditional communication system the role played by adat or religious and traditional leaders is still very important.

Thus, in the West Kalimantan, for example, adat leaders of social groups of common origin or with tribal affinity become the most reliable communication links for the dissemination of messages among the groups. In West Kalimantan, there are Javaneses, Madurese, Dayak, Malay and Chinese community groups, each of their leaders acting as sources of information for members of their respective communities. It is through these leaders that inter-ethnic-group-communication is effectively carried out.

Meanwhile, the role of religious leaders is very strong in the Islamic communities, such as Aceh. Religious training centres and mosques

are centres for social gatherings and for a very effective dissemination of messages, besides markets and coffee shops.

Effective communication in rural areas still attaches more importance to the source rather than to the content of the information received because of the villagers' confidence in their leaders.

In Bali, where social and religious life can hardly be separated from one another, traditional leaders, who simultaneously act as religious leaders, are very effective in disseminating information. Their firm role is further enhanced by the strong adherence of local communities to their own traditions.

Modern communication system

Besides the traditional communication system, there has developed in the rural areas of Indonesia a modern communication system which is new and more formal in character and covers a wider space and message content.

In fact, no rural community in Indonesia at present is still isolated from a wider communication range beyond its own village or region. Through various mass media, whether in the form of printed material or through electronic mass media, village people are now exposed to national messages. Differences in acceptance depend on the attention and perception as well as the interest of the various communities concerned towards the information channelled through (modern) mass media.

Thus, the difference in cultural backgrounds, especially educational and religious backgrounds, greatly influences the receptiveness of members of a community towards modern mass media information which emphasizes the content rather than the source of the message. People in the villages in Aceh, for instance, place more reliance on information conveyed through religious training centres than that conveyed through

newspapers or radio. One reason for the limited influence of messages through newspapers is the low literacy and educational level of the local population, so that not many of them can read newspapers. The number of newspaper readers in the villages in Minahasa is quite large, not because most of the people are Christians, but because more of them had a chance to enjoy formal education under Netherlands administration.

Radio broadcasts, as it has turned out, have been enjoyed more as a source of entertainment than as a source of information, as is reflected by respondents who showed less interest in news. In general, respondents will listen to broadcasts whenever they have the opportunity to do so, and not because of their need for information; this is because their life cycle or different experience make it difficult for them to follow the programmes. A clear example is what happens in West Kalimantan. The Chinese and their descendants tend to listen to Radio Sabah, the Javanese will tune to RRI-Surakarta or Surabaya. The Malays, for their part, prefer to listen to broadcasts from Radio Malaysia which presents entertainment in the Malay language and is more suited to their taste. If many people in Minahasa listen to Radio Australia, they are urged to do so by their need for Western entertainment.

Nonetheless, this does not mean that rural communities in Indonesia are not benefiting from the new (modern) communication system now being developed. What needs to be pointed out is that the acceptance of the new communication system in the rural areas has obviously to be harmonized with the system of values and the customs and traditions in force. Newspapers as well as radio broadcasts are not just regarded as sources of information, but are slowly being accepted as one of the supplements of daily needs, namely as entertainment media.

It is hoped that, via a dependence on entertainment on mass media, information of educational value will slowly be accepted and thus support national development.

Official information campaigns of a national character have still to be managed by government officers. At the same time, mass media so

far have only reached the stage of horizontal information dissemination.

Vertical influence still depends on the religious and other informal leaders as well as on extension workers, for instance in family planning and agricultural intensification. Additional sources of information are officers who frequently come into direct contact with the community, through the sub-district heads, village heads or information officers.

Considering the need to adjust the role and channel of information to the requirements and socio-cultural and religious backgrounds of the rural communities, success or failure of efforts to disseminate to all parts of the country will very much depend on the ability of the government officers concerned to recognize the needs and interests of the communities they are dealing with. The introduction of new cultural elements, including modern communication media, will only bring benefits if they are really needed and are able to catch the interests of the communities concerned.

As we have also learned, systems of communication which are different in nature will also have different influences on the process of national integration, the pattern of consumption and the shift of socio-cultural values. Although a relative percentage of rural community members in the five provinces have shown their ability to communicate in the Indonesian language (especially orally), their knowledge about other ethnic groups and ways of life seems to run parallel with their level of progress and receptiveness, and this is also interrelated with the difference in the systems of communication in force. The development of communication through television has a great chance to help the process of national integration.

Differences are also rather obvious in patterns of consumption, depending on the standard of living and attitude towards articles such as wrist-watches, beer and cigarette lighters, especially in North Sulawesi and West Kalimantan (target villages). These articles mostly function as status symbols for the population and are items for identifying modernization.

Advertising through modern mass communication media (especially radio) seems to have exerted a great influence on changing patterns of consumption. This has been proved by articles which have often been advertised on the radio, such as batteries, food flavours, free-sale medicines, bath soaps and toothpastes. The influence of advertisements through television is still limited because of the limited number of sets, but in South Sulawesi it seems to be more effective already than advertising the same goods on the radio.

This study has indicated that the rural communities under study have quite a rational attitude towards their daily needs. This is obvious from the replies given on the factor of success of an enterprise. Their reply in general was "hard work". Also in spending money, their attitudes seemed quite rational. But will rationality be able to hold on in face of the increased flow of communication which will develop even more rapidly through the satellite communication system? Further studies still have to find the right answer.

The shift of values appears to be very strong in respect of education, especially in areas where education facilities have been recently introduced, such as Aceh and Bali. But very often this situation is not accompanied by a sufficiently rationalistic view.

For instance, when asked how they would spend an extra amount of Rp. 100,000 very few respondents said they would spend it or their children's education (a rather high percentage of such a reply came from the rather progressive people in North Sulawesi). That expenditure on education is of secondary importance can be concluded from the answers given to the question about borrowed money, which showed that it was primary to meet the needs of daily life. There seems to be a close correlation between sufficient income and interest in education.

Although, in general, they are still holding strongly to their religions and traditions, rural populations entertain the view (with the exception of the people in Bali) that the behaviour of the younger generation at present seems to be moving further away from their own re-

ligious and traditional values.

This concern may be further aggravated if communication experience results in revolutionary changes. The gap of understanding which separates the older from the younger generations can easily widen. For this reason, it is desirable that the traditional communication system be linked up with modern communication technology.

Thus, from the points of view of consumption patterns and the shifts of socio-cultural values, a too-rapid change in the communication system might bring about psychological and socio-cultural shocks in rural communities, especially those which are still rather unreceptive to and not yet predisposed to change. If this analysis contains elements of truth, it is clear that, in order to avoid a too violent shock, an appropriate development communication strategy should be planned.

This plan should be based on and take into consideration the socio-cultural systems, especially the local traditional and religious value systems.

Obvious variations in historical and socio-cultural backgrounds, standards of living, education, orientation towards the outside world and in existing systems of communication, indicate that for each of the communities different methods should be applied in further developing the systems and linkages with the modern communication systems should be sought. The national communication system to be developed should be socio-culturally based. Only in this way would it be possible to avoid violent psychological or social upheavals stemming from the introduction of new technologies, including the most recent communication technology via satellite.